

SIMATIC HMI TP1500 Comfort Pro, support arm, neutral front, Comfort Panel, Touch operation, 15" widescreen TFT display, 16 million colors, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, WEC 2013, configurable from WinCC Comfort V14 SP1 with HSP

| General information   |                            |
|---|----------------------------|
| Product type designation  | TP1500 Comfort PRO         |
| Display   |                            |
| Design of display   | TFT                        |
| Screen diagonal   | 15.6 in                    |
| Display width   | 344.2 mm                   |
| Display height  | 193.5 mm                   |
| Number of colors  | 16 777 216                 |
| Resolution (pixels)   |                            |
| • Horizontal image resolution   | 1 366 pixel                |
| • Vertical image resolution   | 768 pixel                  |
| Backlighting  |                            |
| • MTBF backlighting (at 25 °C)  | 50 000 h                   |
| • Backlight dimmable  | Yes; 0-100 %               |
| Control elements  |                            |
| Keyboard fonts  |                            |
| • Keys with LED   | No                         |
| • System keys   | No                         |
| • Numeric keyboard  | Yes; Onscreen keyboard     |
| • alphanumeric keyboard   | Yes; Onscreen keyboard     |
| Touch operation   |                            |
| • Design as touch screen  | Yes; Projective-capacitive |
| Expansions for operator control of the process                        |                            |
| • Direct keys (touch buttons as S7 input I/O)                         | 40                         |
| Installation type/mounting  |                            |
| Mounting  | Support arm                |
| Mounting position   | vertical                   |
| Mounting in portrait format possible                                  | No                         |
| maximum permissible angle of inclination without external ventilation | 35°                        |
| Supply voltage  |                            |
| Type of supply voltage  | DC                         |
| Rated value (DC)  | 24 V                       |
| permissible range, lower limit (DC)                                   | 19.2 V                     |
| permissible range, upper limit (DC)                                   | 28.8 V                     |
| Input current   |                            |
| Current consumption (rated value)                                     | 1.5 A                      |
| Starting current inrush I <sup>2</sup> t                              | 0.5 A <sup>2</sup> ·s      |
| Power   |                            |
| Active power input, typ.  | 36 W                       |
| Processor   |                            |
| Processor type  | X86                        |
| Memory  |                            |
| Flash   | Yes                        |
| RAM   | Yes                        |
| Memory available for user data  | 24 Mbyte                   |
| Type of output  |                            |
| Info LED  | No                         |
| Power LED   | No                         |

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| Error LED  | No                                      |
| Acoustics  |   |
| • Buzzer   | No                                      |
| • Speaker  | Yes                                     |
| <b>Time of day</b>                               |   |
| Clock  |   |
| • Hardware clock (real-time)                     | Yes                                     |
| • Software clock                                 | Yes                                     |
| • retentive                                      | Yes; Back-up duration typically 6 weeks |
| • synchronizable                                 | Yes                                     |
| <b>Interfaces</b>                                |   |
| Number of industrial Ethernet interfaces         | 2; 2 ports (switch) + independent port  |
| Number of RS 485 interfaces                      | 1; RS 422 / 485 combined                |
| Number of RS 422 interfaces                      | 0; together with RS 485                 |
| Number of RS 232 interfaces                      | 0                                       |
| Number of USB interfaces                         | 2; USB 2.0                              |
| Number of SD card slots                          | 2                                       |
| With software interfaces                         | No                                      |
| Industrial Ethernet                              |   |
| • Industrial Ethernet status LED                 | 3                                       |
| • Number of ports of the integrated switch       | 2                                       |
| <b>Protocols</b>                                 |   |
| PROFINET   | Yes                                     |
| Supports protocol for PROFINET IO                | Yes                                     |
| IRT  | Yes                                     |
| PROFIBUS   | Yes                                     |
| EtherNet/IP                                      | Yes                                     |
| MPI  | Yes                                     |
| Protocols (Ethernet)                             |   |
| • TCP/IP   | Yes                                     |
| • DHCP   | Yes                                     |
| • SNMP   | Yes                                     |
| • DCP  | Yes                                     |
| • LLDP   | Yes                                     |
| <b>WEB characteristics</b>                       |   |
| • HTTP   | Yes                                     |
| • HTTPS  | Yes                                     |
| • HTML   | Yes                                     |
| • XML  | Yes                                     |
| • CSS  | Yes                                     |
| • Active X                                       | Yes                                     |
| • JavaScript                                     | Yes                                     |
| • Java VM  | No                                      |
| <b>Redundancy mode</b>                           |   |
| Media redundancy                                 |   |
| — MRP  | Yes                                     |
| <b>Further protocols</b>                         |   |
| • CAN  | No                                      |
| • MODBUS   | Yes                                     |
| <b>Interrupts/diagnostics/status information</b> |   |
| Diagnoses  |   |
| • Diagnostic information readable                | Yes; S7 controller                      |
| <b>EMC</b>                                       |   |
| Emission of radio interference acc. to EN 55 011 |   |
| • Limit class A, for use in industrial areas     | Yes                                     |
| • Limit class B, for use in residential areas    | No                                      |
| <b>Degree and class of protection</b>            |   |
| IP (at the front)                                | IP65                                    |
| IP (rear)  | IP65                                    |
| NEMA (front)                                     |   |

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| • Enclosure Type 4 at the front                          | Yes                                |
| • Enclosure Type 4x at the front                         | Yes                                |
| <b>Standards, approvals, certificates</b>                |                                    |
| CE mark  | Yes                                |
| cULus  | Yes                                |
| RCM (formerly C-TICK)                                    | Yes                                |
| KC approval  | No; Available soon                 |
| EAC (formerly Gost-R)                                    | No; Available soon                 |
| <b>Ambient conditions</b>                                |                                    |
| Suited for indoor use                                    | Yes                                |
| Suited for outdoor use                                   | No                                 |
| <b>Ambient temperature during operation</b>              |                                    |
| Operation (vertical installation)                        |                                    |
| — For vertical installation, min.                        | 0 °C                               |
| — For vertical installation, max.                        | 45 °C                              |
| Operation (max. tilt angle)                              |                                    |
| — At maximum tilt angle, min.                            | 0 °C                               |
| — At maximum tilt angle, max.                            | 40 °C                              |
| <b>Ambient temperature during storage/transportation</b> |                                    |
| • min.   | -20 °C                             |
| • max.   | 60 °C                              |
| <b>Relative humidity</b>                                 |                                    |
| • Operation, max.  | 90 %; no condensation              |
| <b>Operating systems</b>                                 |                                    |
| proprietary  | No                                 |
| pre-installed operating system                           |                                    |
| • Windows CE   | Yes; Windows Embedded Compact 2013 |
| <b>configuration / header</b>                            |                                    |
| Message indicator  | Yes                                |
| Alarm system (incl. buffer and acknowledgment)           | Yes                                |
| Process value display (output)                           | Yes                                |
| Process value default (input) possible                   | Yes                                |
| Recipe management  | Yes                                |
| <b>Configuration software</b>                            |                                    |
| • STEP 7 Basic (TIA Portal)                              | No                                 |
| • STEP 7 Professional (TIA Portal)                       | No                                 |
| • WinCC flexible Compact                                 | No                                 |
| • WinCC flexible Standard                                | No                                 |
| • WinCC flexible Advanced                                | No                                 |
| • WinCC Basic (TIA Portal)                               | No                                 |
| • WinCC Comfort (TIA Portal)                             | Yes; V14 SP1 HSP and higher        |
| • WinCC Advanced (TIA Portal)                            | Yes; V14 SP1 HSP and higher        |
| • WinCC Professional (TIA Portal)                        | Yes; V14 SP1 HSP and higher        |
| <b>Languages</b>   |                                    |
| <b>Online languages</b>                                  |                                    |
| • Number of online/runtime languages                     | 32                                 |
| <b>Project languages</b>                                 |                                    |
| • Languages per project                                  | 32                                 |
| <b>Functionality under WinCC (TIA Portal)</b>            |                                    |
| Libraries  | Yes                                |
| <b>Applications/options</b>                              |                                    |
| • Web browser  | Yes                                |
| • Pocket Word  | Yes                                |
| • Pocket Excel   | Yes                                |
| • PDF Viewer   | Yes                                |
| • Media Player   | Yes                                |
| • SIMATIC WinCC Sm@rtServer                              | Yes                                |
| • SIMATIC WinCC Audit                                    | Yes                                |
| Number of Visual Basic Scripts                           | Yes                                |
| Task planner   |                                    |

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| • time-controlled   | Yes     |
| • task-controlled   | Yes     |
| Help system   |         |
| • Number of characters per info text                        | 320     |
| Message system  |         |
| • Number of alarm classes                                   | 32      |
| • Bit messages  |         |
| — Number of bit messages                                    | 6 000   |
| • Analog messages   |         |
| — Number of analog messages                                 | 200     |
| • S7 alarm number procedure                                 | Yes     |
| • System messages HMI                                       | Yes     |
| • System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ...) | Yes     |
| • Number of characters per message                          | 80      |
| • Number of process values per message                      | 8       |
| • Acknowledgment groups                                     | Yes     |
| • Message indicator   | Yes     |
| • Message buffer  |         |
| — Number of entries   | 1 024   |
| — Circulating buffer  | Yes     |
| — retentive   | Yes     |
| — maintenance-free  | Yes     |
| Recipe management   |         |
| • Number of recipes   | 500     |
| • Data records per recipe                                   | 1 000   |
| • Entries per data record                                   | 2 000   |
| • Size of internal recipe memory                            | 4 Mbyte |
| • Recipe memory expandable                                  | Yes     |
| Variables   |         |
| • Number of variables per device                            | 4 096   |
| • Number of variables per screen                            | 400     |
| • Limit values  | Yes     |
| • Multiplexing  | Yes     |
| • Structures  | Yes     |
| • Arrays  | Yes     |
| Images  |         |
| • Number of configurable images                             | 750     |
| • Permanent window/default                                  | Yes     |
| • Global image  | Yes     |
| • Pop-up images   | Yes     |
| • Slide-in images   | Yes     |
| • Image selection by PLC                                    | Yes     |
| • Image number in the PLC                                   | Yes     |
| Image objects   |         |
| • Number of objects per image                               | 600     |
| • Text fields   | Yes     |
| • I/O fields  | Yes     |
| • Graphic I/O fields (graphics list)                        | Yes     |
| • Symbolic I/O fields (text list)                           | Yes     |
| • Date/time fields  | Yes     |
| • Switches  | Yes     |
| • Buttons   | Yes     |
| • Graphic display   | Yes     |
| • Icons   | Yes     |
| • Geometric objects   | Yes     |
| Complex image objects                                       |         |
| • Number of complex objects per screen                      | 40      |
| • Alarm view  | Yes     |
| • Trend view  | Yes     |
| • User view   | Yes     |

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| • Status/control                       | Yes  |
| • Sm@rtClient view                     | Yes  |
| • Recipe view                          | Yes  |
| • f(x) trend view                      | Yes  |
| • System diagnostics view              | Yes  |
| • Media Player                         | Yes  |
| • HTML browser                         | Yes  |
| • PDF display                          | Yes  |
| • IP camera display                    | Yes  |
| • Bar graphs                           | Yes  |
| • Sliders                              | Yes  |
| • Pointer instruments                  | Yes  |
| • Analog/digital clock                 | Yes  |
| Lists                                  |  |
| • Number of text lists per project     | 500  |
| • Number of entries per text list      | 500  |
| • Number of graphics lists per project | 500  |
| • Number of entries per graphics list  | 500  |
| Archiving                              |  |
| • Number of archives per device        | 50   |
| • Number of entries per archive        | 50 000   |
| • Message archive                      | Yes  |
| • Process value archive                | Yes  |
| • Archiving methods                    |  |
| — Sequential archive                   | Yes  |
| — Short-term archive                   | Yes  |
| • Memory location                      |  |
| — Memory card                          | Yes  |
| — USB memory                           | Yes  |
| — Ethernet                             | Yes  |
| • Data storage format                  |  |
| — CSV                                  | Yes  |
| — TXT                                  | Yes  |
| — RDB                                  | Yes  |
| Security                               |  |
| • Number of user groups                | 50   |
| • Number of user rights                | 32   |
| • Number of users                      | 50   |
| • Password export/import               | Yes  |
| • SIMATIC Logon                        | Yes  |
| Logging through printer                |  |
| • Alarms                               | Yes  |
| • Report (shift log)                   | Yes  |
| • Hardcopy                             | Yes  |
| • Electronic print to file             | Yes; PDF, HTML   |
| Character sets                         |  |
| • Keyboard fonts                       |  |
| — US English                           | Yes  |
| Transfer (upload/download)             |  |
| • MPI/PROFIBUS DP                      | Yes  |
| • USB                                  | Yes  |
| • Ethernet                             | Yes  |
| • using external storage medium        | Yes  |
| Process coupling                       |  |
| • S7-1200                              | Yes  |
| • S7-1500                              | Yes  |
| • S7-200                               | Yes  |
| • S7-300/400                           | Yes  |
| • LOGO!                                | Yes  |
| • WinAC                                | Yes  |
| • SINUMERIK                            | Yes; With SINUMERIK option package as from WinCC V15 or higher |

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| • SIMOTION   | Yes                           |
| • Allen Bradley (EtherNet/IP)                          | Yes                           |
| • Allen Bradley (DF1)                                  | Yes                           |
| • Mitsubishi (MC TCP/IP)                               | Yes                           |
| • Mitsubishi (FX)                                      | Yes                           |
| • OMRON (FINS TCP)                                     | No                            |
| • OMRON (LINK/Multilink)                               | Yes                           |
| • Modicon (Modbus TCP/IP)                              | Yes                           |
| • Modicon (Modbus)                                     | Yes                           |
| • OPC UA Client  | Yes                           |
| • OPC UA Server  | Yes                           |
| <b>Service tools/configuration aids</b>                |                               |
| • Backup/Restore manually                              | Yes                           |
| • Backup/Restore automatically                         | Yes                           |
| • Simulation   | Yes                           |
| • Device switchover                                    | Yes                           |
| <b>Peripherals/Options</b>                             |                               |
| Printer  | Yes                           |
| SIMATIC HMI MM memory card: Multi Media Card           | Yes; Up to 128 MB             |
| SIMATIC HMI SD memory card: Secure Digital memory card | Yes; Up to 2 GB               |
| SIMATIC HMI CF memory card Compact Flash Card          | No                            |
| USB memory   | Yes                           |
| SIMATIC IPC USB Flashdrive (USB stick)                 | Yes; Up to 16 GB              |
| SIMATIC HMI USB stick                                  | Yes; Up to 8 GB               |
| Network camera   | Yes                           |
| <b>Mechanics/material</b>                              |                               |
| Enclosure material (front)                             |                               |
| • Plastic  | No                            |
| • Aluminum   | Yes                           |
| • Stainless steel                                      | No                            |
| <b>Dimensions</b>                                      |                               |
| Width of the housing front                             | 396 mm                        |
| Height of housing front                                | 256 mm; Without basic adapter |
| Overall depth  | 101 mm; Without basic adapter |
| <b>Weights</b>   |                               |
| Weight (without packaging)                             | 6.3 kg                        |

**last modified:**

3/12/2024 